ABSTRACT

This diploma thesis treats of biotransformation enzymes issue in development of resistance of parasitic helminths on benzimidasole anthelmintics. The treatment of helminthic infections has become problematic because of frequent drug resistance of helminth parasites. The development of drug resistance can be facilitated by the action of xenobiotic metabolizing enzymes. Experimental model was represented by *Haemochus contortus* which is one of the most pathogenic parasites of domestic and wild ruminant species. Adults of H. contortus were isolated from infected sheep; these were treated by sub-therapeutic doses of anthelmintic flubendazole. And were also isolated from infected sheep but with no treatment applied. There were determined specific activities of selected biotransformation enzymes of the first and second phase in subcellular fractions of the hetminth homogenate. Comparing enzymatic activity values among examined groups of hetminths I was evaluating possible influence on enzymatic activities if there was flubendazole applied in the past.